Air Force Mission Support System (AFMSS) U-2 Aircraft/Weapons/Electronics (A/W/E)

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UNCLASSIFIED

AFMSS Description

- **The Air Force Mission Support System (AFMSS) is a USAF Mission Planning and Navigation Tool – Part of the Mission Planning Environment (MPE).**

- **AFMSS is a unit-level (squadron/wing) automated mission planning system that supports planning ranging from day-to-day training, to peace-time operational/exercise sorties, to complex operations supporting conventional or unconventional armed conflict. Mission planning activities include flight planning computations, route optimization and selection in a threat environment, combat mission folder preparation, and data transfer device loading to initialize aircraft/weapons systems avionics.**

AFMSS Description (cont'd.)

- **Aircraft Mission Planning is the creation of a flight plan which takes into account terrain, weather, aircraft performance capability and configuration. The planner must have the ability to calculate fuel requirements and assess the route based on known enemy threat location and type. In addition, a planner must be able to de-conflict flight routes with other aircraft, review, print and brief the mission plan to Command and download pertinent flight information to on-board aircraft avionics.**
- **AFMSS provides an integrated environment supporting all missions and aircraft. Mission planning tools include:**

Flight, Route Planning Target Area Planning

Radar Predictions Threat Analysis

Route Fly Through Perspective Views

U-2 A/W/E Description

- **The AFMSS U-2 Aircraft/Weapons/Electronics (A/W/E) Mission Planning System (MPS) is a U-2 navigation planning system that can produce complete mission packages for U-2 flight operations. Mission packages include mission green cards, annotated navigation charts for pilot's use during flight, and Portable Data Transfer System (PDTS) floppies. PDTS floppies contain Navigation and Collection Plan parameters used to program the aircraft's Inertial Navigation System (INS) and intelligence sensors.**

- **For added flexibility, U-2 A/W/E MPS can receive and transmit pre-planned Navigation and Collection data from remotely located ground stations. Flight plans received are verified and modified by on-site U-2 Mission Planners. Modified plans are transmitted back for use during sensor planning and mission collection.**

U-2 A/W/E Description (cont'd)

- **AFMSS U-2 A/W/E is integrated into the Deployable Shelterized System (DSS) as a software application on the Mission Intelligence Segment (MIS).**

- **The U-2 A/W/E and the MIS interface to the Common Sensor Planner (CSP) to support collection planning for ASARS-2, ASARS-2A, SYERS, and SYERS-2 sensors.**

- **The AFMSS U-2 A/W/E Mission Planner is the <u>only</u> certified navigation track product available to the government. Non-support of AFMSS before the Joint Mission Planning System (JMPS) is online would create pilot safety and flight issues.**

Version 7.0 Enhancements

- Port U-2 A/W/E to a Mission Planning System Portable (MPSP) Laptop Computer (Tadpole)
- Mission Number and Track ID
- RECON-2 Product
- Automated Load of Target Collection Tasking Data
- Utilization of AFMSS Version C2.2d Wind Data
- Backup and Restore of Common Sensor Planner (CSP) Theater Map Libraries and Mission Data
- Green Card Enhancements
- Version 7.0 Scheduled for Fielding August 2004

Version 8.0 Enhancements

- **Router Editor Integration with Chart and AFMSS Screen**
- **U-2 Operability on both the MPS V and MPSP (Tadpole)**
- **Self-Orienting ADHOC Headings**
- **Automated Orbit Planning**
- **C2.2d Version 7.5.2 (and later), and CSP Integration**
- **Training for Version 7.0 U-2 A/W/E Upgrade**
- **Version 8.0 Scheduled for Fielding 23 May 2005**

U-2 Migration To JMPS: "Joint Mission Planning System"

- Joint Mission Planning System (JMPS) is the next Evolution of Mission Planning System (MPS) Capabilities.
- JMPS Replaces the Current MPS.
- Provides a Single DoD-wide (Army, Navy, Air Force, and Marines) Mission Planner.
- Migrates MPS/PFPS to the Common Operating Environment.
- JMPS will Interface with: Theater Battle Management Core System(s), Global Command and Control System(s), and Global Decision Support System(s).
- U-2 JMPS Development Migration FY05-FY06.
  - Contract Vehicle: Mission Planning Enterprise Contract (MPEC)
  - MPEC Source Selection Ongoing (July 2004)
- Early Emphasis for the Fighter/Bomber Community.

CONCERNS

- **Sustainment Issues for AFMSS Migration to JMPS :**
  - **Two-year development effort followed by a 4-6 month test effort.**
  - **AFMSS U-2 A/W/E support and upgrade will be required during the JMPS development cycle.**
    - **U-2 may need a Life Cycle Upgrade (LCU).**
      - **Maintain AFMSS C2.3 operability and functionality.**